

CHAPTER 1, FOOD SAFETY

3-5.6.2 Leftovers

a. Leftovers are any unserved food remaining at the end of the meal period for which it is prepared. Served food, or food that has been placed on a serving line does not qualify and must be discarded. Leftovers are categorized as potentially hazardous food and nonpotentially hazardous food.

b. Nonpotentially hazardous leftovers are such items as individual commercially packaged crackers, condiments, etc., which may be recovered from the serving line, but not dining tables or trays, and be retained for reuse. Bottled condiments that do not require refrigeration (e.g. mustard, catsup/ketchup, steak sauce, etc.) may be retained for reuse. Unsliced, hard skinned fruits may be retained from serving lines for reuse provided they are washed.

c. Potentially Hazardous Leftovers. Potentially hazardous leftovers include any potentially hazardous food prepared for a specific meal period and then retained for a later meal period. This section does not apply to advance prepared food as defined in section 3-5.6.1 The following provisions apply:

(1) Foods with commercially prepared chopped or ground meat ingredients may be retained as leftovers.

(2) Potentially hazardous food retained as leftovers must have been held at safe temperatures.

(3) Potentially hazardous food must not have been placed on the serving line. They must have been held in the kitchen for "hot holding" at 140°F or in "cold holding" at 41°F or below.

(4) Hot items to be retained chilled, must be cooled within a 4-hour period, in the following manner:

(a) From 140°F to 70°F within 2 hours; and

(b) From 70°F to 41°F, or below, within the total 4-hour period.

1 Any food not meeting these temperature requirements at the specified times will be discarded.

2 These food items must be maintained at 41°F or below until removed for service or heating for hot holding prior to service.

3 Rapid cooling methods are discussed in section 3-5.6.1.

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(c) Potentially hazardous leftovers must be labeled "Leftover Use Within 24 Hours" with the date and time of original preparation and the discard date and time. Other methods for labeling may be used if approved in writing by the PMA.

d. Potentially hazardous foods which have been cooked, chilled and reheated for service shall not be saved as leftovers.

e. Leftover foods may be retained for 24 hours chilled (41° F or below) or for 5 hours if maintained hot (140° F or above). The time limit(s) for leftovers begins when the food is removed from hot holding. No temperature logs are required but foods must not be in the "danger zone" between 41° F and 140° F for more than four total hours from time of preparation until discarded.

f. Freezing of leftovers is prohibited.

g. Reheating Leftover Potentially Hazardous Food. Potentially hazardous food that has been cooked and then refrigerated and which is reheated for hot holding must be reheated so that all parts of the food reach 165°F for a minimum of 15 seconds and then held at 140°F or above until served. The time for reheating to 165°F will not exceed 2 hours.

h. Commercial meats, cheeses and salad requirements are found under Section 3-5.16.

i. Prohibited Leftovers

(1) Foods composed of ingredients which have been peeled, sliced, or diced by hand after cooking must never be used as leftovers, since the 4-hour time limit between temperatures of 41°F and 140°F is usually taken up in preparing, chilling, and serving the food.

(2) These foods include, but are not necessarily limited to potato salad, chicken salad, turkey salad, macaroni salad, shrimp salad, egg salad, and similar items. Also included are foods that have been creamed or handled a great amount (e.g., hashes, most gravies and dressings, and creamed meats) and items that are highly perishable (e.g., most seafood).

(3) Nonpackaged or unwrapped potentially hazardous food recovered from a self-service line must not be retained as leftovers.

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3-5.6.3 Donation of Excess Food to Local Relief Organizations

Guidance for donation of excess food to local relief organizations and similar programs may be obtained from the Naval Supply Systems Command. It is recommended that commands donating excess food follow a HACCP system.

3-5.7 Frozen Foods

a. The storage of frozen foods shall be limited to the storage life listed in NAVSUP PUB 486, Volume 1, Chapter 5.

b. Thawing Procedures.

(1) Frozen foods must not be thawed by exposure to excessive heat or warm air currents. The ideal procedure is to place frozen foods under controlled thawing temperatures (36°F to 38°F) in their original wrappers or containers.

(2) Frozen foods may be thawed in microwave ovens provided they are immediately cooked thereafter as a part of a continuous cooking process.

(3) At shore based facilities frozen foods may be thawed completely submerged under running water:

(a) At a water temperature of (21°C) 70°F or below;

(b) With sufficient water velocity to agitate and float off loose particles in an overflow;

(c) For a period of time that does not allow thawed portions of ready-to-eat food to rise above 41°F (5°C);

(d) For a period of time that does not allow thawed portions of a raw animal food requiring cooking to be above (41°F) 5°C for more than 4 hours including:

1 The time the food is exposed to the running water and the time needed for preparation for cooking, or

2 The time it takes under refrigeration to lower the food temperature to 5°C (41°F).

(4) On board ships, and only during emergency situations when microwave ovens and refrigeration equipment are inoperative, it may be necessary to use a thawing method not approved by FDA (e.g., thawing at room temperature). In this situation, the following guidelines must be used:

(a) Frozen foods are thawed in the galley or meat preparation space;

(b) The room temperature must not exceed 80°F.

(c) Meat, poultry, and fish must remain in their original sealed wrappers or containers;

(d) Proper precautions must be taken to ensure potentially hazardous foods are not allowed to remain at room temperature once thawed;

(e) The preventive medicine authority must be notified.

c. Commercial type Frozen Food Operation. This is the only authorized operation in which food intended for use at a future time is prepared, frozen, and stored. Navy and Marine Corps frozen food processing operations must obtain CHBUMED approval for operations not previously authorized.

d. Freezing of leftovers is not authorized.

e. A waiver for freezing of limited menu items that are advance prepared foods, (e.g., lumpia, egg rolls) may be authorized by the PMA under certain conditions and may require an HACCP plan.

3-5.8 Reconstituted, Dehydrated Foods

Food items such as dehydrated eggs and vegetables are as susceptible to spoilage after reconstitution as the fresh items. Dehydrated foods must be reconstituted with chilled ingredients and be cooked or refrigerated immediately following reconstitution.

3-5.9 Sandwiches

Sandwich preparation shall meet all of the requirements of this chapter. Sandwiches prepared for future service will require approval from the PMA and may require a HACCP plan.

3-5.10 Serving Lines

a. All serving lines must be equipped with a functional sneeze shield. To be functional, a sneeze shield must present a barrier between the oral zone of patrons within the normal range of stature and the food displayed for service.

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b. The temperatures of hot and cold foods on the serving line must be checked frequently to ensure no food is held between 41-140°F.

3-5.11 Salad Bars

a. Salad bars may be set up on a self-service basis and must be equipped with a sneeze shield. To assure all salad bar items remain below 41°F, they must be prechilled in a refrigerator and placed in pans or trays which are located on a bed of ice or on an electrically refrigerated salad bar unit. Proper drainage is essential when ice is used.

b. Potentially hazardous foods must be placed on the salad bar in small quantities and be replenished in clean containers as needed. Sprouts are considered a PHF.

c. Vegetable items on the salad bar may be kept until the end of the day as long as a visual inspection is made during each meal period to ensure food quality. Noncommercially prepared salad dressings placed on the salad bar in an open container must be discarded at the end of the meal period. Other potentially hazardous food placed on the salad bar must be discarded at the end of the meal period.

d. Commercially prepared salad dressings which are packaged in and served from small bottles (usually 8 ounces) are exempt from the requirement to discard any leftover portions provided they are kept under refrigeration during storage.

e. An adequate number of proper serving utensils for the salad bar must be provided. Food dispensing utensils must be stored either in the food with handles extended or in running water.

f. Certain commercial brands of mayonnaise and salad dressings are exempted from the requirement for refrigeration during meal periods. They must employ the use of an NSF or equivalent approved dispensing pump and be refrigerated between meal periods. After 48 hours any unused products must be discarded as garbage. The dispensing pump must be cleaned and sanitized immediately prior to installing on the container; too frequent removal of the pump while the container is in service may result in possible contamination of the product. External cleaning of the pump with a sanitizing solution, when in place, can be accomplished if necessary. Similarly, individual single service packages of mayonnaise, other condiments, and salad dressings do not require refrigeration.

g. Patrons must be required to use new tableware for each trip to the salad bar.

3-5.12 Self-service Items

a. Food items permitted in self-service areas in addition to salads are bread, butter, crackers, relishes, condiments, beverages, and certain types of desserts. Desserts which may be self-served are:

(1) Desserts portioned in individual dishes;

(2) Individually wrapped portions of ice cream. Bulk ice cream will not be used for self-service. Ice cream must be placed in individual dishes.

(3) Cookies;

(4) Fruits (fresh, canned, stewed, and frozen);

(5) Soft ice cream from dispensing machines.

b. Desserts such as cakes, pies, puddings, and bulk ice cream will not be self-service unless provided in individual dishes.

c. Food dispensing utensils must be stored in the food with handles extended or in running water. Dry food dispensing utensils must be stored clean and dry or in the dry food. These utensils must be designed for this purpose. Self-service lines shall be carefully supervised throughout the meal period to keep foods neatly arranged and replenished.

d. Authority to permit self-service of items other than those listed in the preceding paragraphs must be requested in writing from the installation preventive medicine authority.

3-5.13 Buffets

a. Buffet type meals have the potential of providing ideal temperatures for rapid growth and multiplication of pathogens. Therefore, it is essential that potentially hazardous foods not be held for more than 4 hours between 41-140°F including the time required for preparation and holding time before, during and after serving.

b. All food remaining on the buffet line must be discarded at the end of the meal period.

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c. Patrons must be required to use new tableware for each trip to the buffet line.

3-5.14 Family Style Service

a. Certain small messes are authorized "family style" service when serving facilities are not available. However, due to the lack of food holding equipment and the potential for contamination during service, strict compliance with the 4-hour rule is mandatory.

b. Foods must be placed out for service as close to meal periods as possible in small quantities and be replenished as needed during the meal.

c. Adequate and proper serving utensils must be provided for each food item.

d. Salad mixtures, salad dressings and other potentially hazardous foods to be served cold must be prechilled to 41°F or lower, prior to service and then be placed in pans on a bed of ice during service.

e. Potentially hazardous foods served "family style" must be discarded as garbage after the meal period.

f. Bulk ice cream must not be served "family style."

g. Serving bowls/platters will not be refilled; clean bowls/platters must be used. Any food not consumed must be discarded.

3-5.15 Special Meals

The 4 hour maximum time permitted for holding potentially hazardous foods at temperatures between 41-140°F is of particular importance in the case of special meals (boat meals, flight meals, and recreation parties). All types of flight rations must be carefully packaged to preclude the risk of contamination and exposure during transit.

3-5.16 Commercial Meats, Cheeses, and Salads

The following sanitary guidelines have been developed exclusively for the handling and storage of commercially processed bulk food items:

a. Preslicing must be restricted to high turnover items.

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b. When used, bayonet type pricing mounts will not be allowed, under any circumstances, to penetrate the food product. Instead, they should be mounted into lemons or similar fruits for display purposes.

c. Use all salads, including the contents of a master container, within 72 hours after opening. On each master container, mark the date and time it is opened. Use only commercially prepared products purchased from suppliers listed in the Directory of Sanitarily Approved Food Establishments for Armed Forces Procurement or other Government inspection directories. Handle salads as follows:

(1) Sanitarily remove only the amount of salad expected to be used/sold in 1 day from the master container and place in a clean, sanitized pan in the display case. Label the pan with the date the master container was opened, the lot number, the name of the supplier (if more than one source of supply is used), and the expiration date.

(2) At the close of business each day, dispose of small amounts (1 quart or less) of leftover salad. Cover pans containing larger amounts (more than 1 quart) with clean wrap and leave in the display case or place into backup refrigeration. Do not use aluminum foil, it will chemically react with some foods. At the beginning of the next workday, place the leftover salad into a clean sanitized pan. Position the pan so the leftover salad will be used/sold first. Never put salads from the display case back into the master container.

d. Handle meats and cheeses as follows:

(1) Commercially prepared high moisture cheeses, luncheon meat loaves, roast beef, ham, and similar products prepared and packaged by a food processing plant shall be clearly marked, at the time the original container is opened in a food establishment. Marking must indicate the date by which the food shall be consumed, including the date the original container was opened:

(a) All meats and cheese must be consumed within 7 calendar days after opening. All meats and cheeses must be maintained at or below 41°F.

(b) These items should be visually inspected upon each use and discarded at the first sign of product deterioration.

e. Individually sliced and wrapped commercially prepared cheeses shall be used or disposed of prior to their pull date.

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If visual inspection reveals problems prior to the pull date, the affected slices will be disposed of as waste.

3-6 SPECIAL FACILITIES AND VENDING OPERATIONS

- 3-6.1 CLUBS, MESSSES, EXCHANGES AND CONCESSIONS
(FOOD SERVICE) AND DELICATESSENS**
- 3-6.2 AUXILIARY RESALE OUTLETS (AROs)**
- 3-6.3 VENDING OPERATIONS**
- 3-6.4 MOBILE FOOD SERVICE**
- 3-6.5 COMMISSARIES**
- 3-6.6 COFFEE MESSSES**
- 3-6.7 CHILD DEVELOPMENT CENTERS AND FAMILY HOME CARE UNITS**

3-6.1 Clubs, Messses, Exchanges and Concessions (Food Service) and Delicatessens

All clubs, messses, exchanges, and concessionary food service operations must comply with sanitary standards and regulations prescribed in this chapter. The person in charge (military or civilian) should maintain close liaison with the preventive medicine authority to ensure compliance with all sanitation requirements. These food establishments must be inspected at the same intervals as any food establishment by the PMA.

3-6.2 Auxiliary Resale Outlets (ARO)

OPNAVINST 4060.4 contains procedures to establish and operate AROs. The PMA will inspect these outlets upon establishment and on an unscheduled basis after commencement of operations. A determination will be made whether PHF is being sold. AROs selling PHF will be considered food establishments and all provisions of this manual shall apply.

3-6.3 Vending Operations

a. Vending machines placed into operation on Navy and Marine Corps installations must comply with the standards of "The Vending of Food and Beverages-A Model Sanitation Ordinance, Food and Drug Administration" and be found on the "Listing of Letters of Compliance" by the National Automatic Merchandising Association.

b. Inspections. The PMA shall ensure by inspection on a quarterly basis, that vending machines are maintained in a sanitary manner.

3-6.4 Mobile Food Service

a. Mobile food service or canteen trucks are operated as authorized by the Navy Exchange Manual and MCO 4066.13. They must be maintained in a clean, sanitary condition at all times. Only single service articles will be provided for use by the consumer. Food service sanitation training is a requirement for operators who dispense food items from these vehicles. The PMA must regularly inspect these Government operated trucks and carts while they are in operation.

b. Nongovernment operated food vendors must be licensed and approved by the local or State health authority and must be registered with the local PMA. The inspection frequency will be determined by the PMA, but must be done at least quarterly.

c. All food service equipment in mobile vans must be equivalent to or meet applicable design and performance standards of NSF Standard No. 59 or its equivalent.

d. Transportation of food from a centralized kitchen to a satellite dining facility poses special hazards which increase in proportion to distance and time. Therefore, all foods must be transported in covered containers or completely wrapped or packaged to protect them from contamination, and all potentially hazardous food must be maintained at 41°F or below, or 140°F or above during transportation.

3-6.5 Commissaries

Commissaries will normally be inspected by U.S. Army veterinary personnel. When U.S. Army personnel are not available, commissaries will be inspected by Navy PMA using the current methods established by the U.S. Army VETCOM Instructions.

3-6.6 Coffee Messes

a. The term "coffee mess" means any room, space, area, or facility authorized by a department or office for the purpose of preparing or dispensing coffee, tea, or similar beverages. Food is not authorized to be stored, prepared or served in coffee messes.

b. Coffee messes require no initial or periodic medical inspections by the PMA.

3-6.7 Child Development Centers and Family Home Care Units

a. Child development centers are command sponsored child

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care facilities located on station and operated as authorized by OPNAVINST 1700.9 series. Food service operations in these centers will comply with this chapter.

b. Family Home Care Units are provided in Government quarters (Government owned or leased) and approved by the local commanding officers and housing authority. Care may be provided for up to six children by a private individual in a Navy family housing unit.

(1) These units are not subject to routine food service sanitation inspections. However, OPNAVINST 1700.9 series requires the Preventive Medicine Service to conduct an initial and annual inspection of family home care units.

(2) Commercial food service sanitation requirements (e.g., NSF equivalent refrigeration units, dishwashers, three compartment sinks, etc.) will not be applied to family home care units.

3-7 TEMPORARY FOOD SERVICE

3-7.1 REQUIREMENTS

3-7.2 INSPECTIONS AND APPROVALS

3-7.3 TYPES OF OPERATIONS

3-7.4 EQUIPMENT

3-7.5 SINGLE SERVICE ARTICLES

3-7.6 WATER

3-7.7 SEWAGE

3-7.8 HAND WASHING

3-7.9 FLOORS

3-7.10 WALLS AND CEILINGS OF FOOD PREPARATION AREAS

3-7.1 Requirements

Temporary food establishments will comply with all of the requirements of this chapter unless an exemption is granted by the PMA or is listed in this section. Specific requirements and exceptions for temporary food establishments are provided in this section.

3-7.2 Inspections and Approvals

a. The preventive medicine authority will inspect and approve temporary food establishments prior to start of operations. The individual or agency responsible for the temporary food establishment shall contact the PMA at least 30 days prior to opening to obtain a permit to operate the facility. A model form for requesting a permit to operate a temporary food

establishment is available in this chapter in Appendix C.

b. The PMA may:

(1) Waive certain requirements when no health or sanitation hazard exists. An example is waiving the requirements for screens and doors during cold weather when no hazard exists from flies contaminating food.

(2) Impose additional requirements to protect public health. Examples would be; restricting the amount or type food preparation, or prohibiting certain high risk potentially hazardous food.

3-7.3 Types of Operations

Temporary food service operations are divided into two general classes:

a. Restricted Operations. Restricted operations are temporary food establishments where only potentially hazardous food (PHF) requiring limited preparation, such as hamburgers and frankfurters, are prepared or served. Foods held at unsafe temperatures will be discarded and leftovers are prohibited. The preparation or service of other PHF is prohibited, except restricted operation facilities can serve PHF that are:

(1) Prepared and packaged in a food establishment and under conditions meeting the requirements of this chapter (e.g., central kitchen or commissary);

(2) Obtained in individual portioned containers or packages from approved sources;

(3) Stored at an internal product temperature of 41°F or below, or 140°F or above in equipment meeting the requirements of this chapter.

(4) Served directly in the unopened, individual serving container or package in which it was obtained.

b. General Operations. Nonrestricted operations will comply with all of the requirements of this chapter. Any waivers to this chapter must be requested in writing from the preventive medicine authority.

3-7.4 Equipment

a. Locate and install equipment to prevent food contamination and facilitate cleaning.

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b. Protect against contamination of food contact surfaces of equipment by consumers, food service personnel and other contaminating agents. Provide effective shields and sneeze guards for equipment.

3-7.5 Single service Articles

Temporary food establishments without adequate facilities for cleaning and sanitizing tableware will only use individually wrapped, single service articles.

3-7.6 Water

a. Provide adequate potable water for food preparation, cleaning and sanitizing utensils and equipment, and for hand washing. Provide a potable water heating system capable of producing adequate hot water for cleaning and sanitizing on the premises. If adequate hot water is not available, the scope of food service operations will be limited to the preparation and service of foods that do not require cleaning and sanitizing of equipment and utensils. The PMA may authorize alternative procedures for cleaning and sanitizing equipment and utensils.

b. Temporary food establishments without permanent water supplies must have potable water for cleaning and hand washing.

c. Potable water must be from commercial potable water trailers, temporary connection to building water supply, or in clean sanitary containers or hoses.

(1) Hoses used to carry water for food preparation, drinking water, ware washing and hand washing must be made of food grade material approved for potable water. ("Use of garden hoses is prohibited except for general area cleanup, e.g. for washing down floors and picnic tables). Temporary connections to potable water supply shall not violate plumbing codes. The hose bib shall be connected with a vacuum breaker or other backflow prevention device.

3-7.7 Sewage

All sewage will be disposed of in a sanitary sewer.

3-7.8 Hand Washing

Provide a convenient hand washing facility for employee hand washing. The facility will have at least running water, soap, and individual paper towels. The PMA may approve field expedient hand washing facilities. Food service personnel shall follow hand washing guidance provided in this chapter.

3-7.9 Floors

When provided, floors will be constructed of concrete, asphalt, tight wood, or other similar cleanable material, be graded to drain and kept in good repair. The preventive medicine authority may approve using dirt or gravel as subflooring provided floors are:

- a. Graded to drain;
- b. Covered with clean, removable platforms or duckboards, or other suitable nonabsorbent materials effectively treated to control dust.

3-7.10 Walls and Ceilings of Food Preparation Areas

When required by the PMA, walls and ceilings of temporary food preparation areas shall meet the following standards:

- a. Construct walls and ceilings of wood, canvas, or other material that protects the interior of the establishment from the weather and dust.
- b. Construct walls and ceilings of food preparation areas in a way that minimizes the entrance of insects.
- c. Use at least 16 mesh to the inch screening material for walls, doors, or windows.
- d. Make counter service openings as small as possible for the particular operation conducted. Provide these openings with tight-fitted solid or screened doors or windows, or other construction to restrict the entrance of flying insects.
- e. Surface outdoor walking and driving areas with concrete, asphalt, gravel or other material authorized by the preventive medicine authority to effectively minimize dust, facilitate maintenance and prevent muddy conditions and pooling of water.
- f. Provide adequate number of covered trash containers. Line trash cans with plastic bag(s).
- g. Minimize exposed utility lines, water and waste lines and pipes. Install lines to minimize obstruction for cleaning and minimize safety hazards.

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3-8 HACCP INFORMATION

3-8.1 GENERAL INFORMATION

3-8.2 STEPS OF THE HACCP SYSTEM

3-8.3 HACCP INSPECTION GUIDELINES

3-8.1 General Information

a. The abbreviation HACCP stands for Hazard Analysis and Critical Control Points. This is a food safety system developed to prevent the occurrence of potential food safety and sanitation problems. An HACCP Plan is the written document, based on the principles of HACCP, which delineates the procedures to be followed at a food establishment to assure the control of a specific process or procedure. Essentially HACCP is a system that identifies, monitors and controls specific food sanitation related, biological, chemical or physical hazards, that can adversely effect food safety and lead to the occurrence of a food borne illness. A HACCP Plan may be required by the PMA for certain operations/facilities.

b. The HACCP system focuses on controlling critical offenses that have been associated with numerous outbreaks of food borne illness. Below are some examples of critical offenses, the list is not inclusive. Five of the eight critical offenses are time and/or temperature. The remaining three involve cross contamination.

- (1) Improper cooling of food.
- (2) Inadequate cooking times and temperatures.
- (3) Contamination of food by infected food service workers, including poor personal hygiene.
- (4) Food prepared a day or more prior to serving.
- (5) Contamination of food, not receiving further cooking, by addition of raw (contaminated) ingredients. Examples; spices and similar raw ingredients.
- (6) Foods remaining at unsafe temperatures.
- (7) Failure to reheat foods to proper temperature.
- (8) Cross contamination of cooked food with raw foods or by employees who mishandle food or improperly cleaned equipment.

3-8.2 Steps of a HACCP Plan

A HACCP Plan is divided into seven (7) principles, or steps.

a. Principle #1. Identify Potentially Hazardous Foods.

(1) Hazard and Risk Definitions:

(a) Hazard: Any biological, chemical, or physical property that may cause an unacceptable consumer health risk.

(b) Risk: A likelihood of a hazard.

(2) The first step is to identify the hazards associated with the operations.

(3) Begin with the menu. Select the "most hazardous" menu items or ingredients. Particular attention should focus on foods or ingredients that are common to many different menu items. For example:

(a) Ground beef may be an ingredient in many different menu items including spaghetti sauce, creamed beef, chili, meat loaf and hamburgers.

(b) Don't focus initial efforts on menu items or ingredients that are only served one or two times per month.

(4) Then look at menu items with the greatest potential for contamination or those which are most hazardous.

(a) Meat sauce, gravy, quiche and high protein salads require extensive preparation steps. Contamination can occur at any step, or the raw products can be contaminated.

(b) Items such as fresh fish or shell fish can be contaminated and spoil rapidly.

(5) Work one menu item or ingredient at a time. Set up a flow chart from receiving, through storage, preparation, cooking, serving and disposal of the item. Include rapid cooling and storage of advance preparation foods and leftovers if appropriate. On this flow chart identify where the item could be contaminated as well as the relative risk, severity and probability, of each hazard.

b. Principle #2. Identify the Critical Control Points (CCPs) in Food Preparation.

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(1) A CCP is defined as a point, step, procedure in which a food safety hazard can be prevented, eliminated, or reduced. Examples of critical control points CCPs may include but are not limited to: cooking, chilling, specific sanitation procedures, prevention of cross-contamination, and certain aspects of employee and environmental hygiene.

(2) The following questions may be used in identifying CCPs:

(a) Can the hazard be prevented, eliminated or controlled through measures or procedures that can be implemented by the food service operation?

1 Contamination of animal feed with pesticides, or contamination of poultry with *salmonella* are hazards, but they are not CCPs because the food establishment cannot control them. Purchasing USDA inspected meat and poultry are important but not normally a CCP.

2 Cooking beef or poultry to correct time and temperature are CCPs. The food service facility can control hazard associated with inadequate cooking.

(b) Does this step eliminate or reduce a hazard?

(c) Could contamination occur, or could contamination increase to unacceptable levels?

c. Principle #3: Establish Critical Limits (CLs) for the CCPs.

(1) Critical limits are defined as the criteria that must be met for each preventive measure associated with a CCP. Critical limits may be set for preventive measures such as temperature, time, physical dimensions, humidity, moisture level, water activity, pH, acidity, salt concentration, available chlorine, preservatives, or sensory information such as texture, aroma, and visual appearance.

(a) Incorporate control procedures into the written recipes, for example:

1 Process Step: Hamburger Patty Cooking - Minimum internal temperature of patty: 155°F; Time: Minimum 15 Sec.; oven temperature: ___°F; patty thickness: ___ in inches; patty composition: 100% beef.

(b) Enforce employee hand washing and hygiene practices.

(c) Establish illness policy for employees with flu like symptoms of diarrhea and vomiting.

(d) Enforce proper cleaning and use of sanitizer solutions.

(2) Critical limits must be measurable or observable. The more specific a CL is, the easier it is to monitor. Avoid terms like thoroughly heated, cool rapidly, serve hot. If there is a measurable limit, specify it.

d. Principle #4: Establish Procedures to Monitor CCPs.

(1) Monitoring does not have to be elaborate. It can include checking the temperature of food on a serving line, or taking the temperature of foods being cooled.

(2) Monitoring is a planned sequence of observations or measurements to assess whether a CCP is under control and to produce an accurate record for future use in verification. Examples of measurements for monitoring include:

(a) Visual observations

(b) Temperature

(c) Time

(d) pH

(e) Moisture level

(3) Assignment of the responsibility for monitoring is an important consideration for each CCP. The person responsible for monitoring must also report a process or product that does not meet critical limits so immediate corrective action can be taken. For example:

(a) Assign one person to make and test sanitizer solution each day.

(b) Assign responsibility for equipment temperature logs.

(c) Assign responsibility for food temperature logs for cooking, cooling, and reheating.

(4) All records and documents with CCP monitoring are to be signed or initialed by the person doing the monitoring.

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e. Principle #5: Establish the Corrective Action(s) To Be Taken When Monitoring Shows a Critical Limit (CL) Has Been Exceeded.

(1) The HACCP system for food safety management is designed to identify potential health hazards and to establish strategies to prevent their occurrence. However, ideal circumstances do not always prevail. Therefore, when deviation occurs, corrective action plans must be in place to:

- (a) Determine whether food should be discarded.
- (b) Correct or eliminate the cause of problem.
- (c) Maintain records of corrective action taken.

(2) Actions must demonstrate the CCP has been brought under control. Individuals who have a thorough understanding of HACCP process, product, and plan are to be assigned responsibility for taking corrective action. Corrective action procedures must be documented in the HACCP plan.

(a) Corrective Actions may include:

1 Raising or lowering the thermostat on a piece of equipment.

2 Reclassifying a food as leftover, reheating to 165°F within 2 hours and serving that item the next meal.

3 Dividing a food item being chilled into several smaller containers.

(b) Corrective actions should be developed and in place before the CL is exceeded. The staff must know what protective actions should be followed and under what circumstances.

f. Principle #6. Establish Effective Record Keeping Systems.

(1) Record keeping for HACCP need not be a chore or excessive burden.

(a) If a critical limit (CL) for fresh fish is delivery on shaved ice at 34 to 41° F internal product temperature, the food service employee who receives the delivery should check the product temperature and record it on the delivery invoice.

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(b) If a CL requires rapid cooling, within 4 hours from an internal temperature of 140° F to 41°F, then the food service employee should take the product temperature and record the temperatures at the time from when the product reached 140° F until it reached 41°F.

(2) Keeping good records is especially important for production operations such as sandwich shops, central kitchens or vending commissaries and cook chill production kitchens.

(3) The associated records should be on file at the food establishment. Generally, such records include the following:

(a) Listing of the HACCP team members and assigned responsibilities.

(b) Description of the food and its intended use, product description, and specifications.

(c) Listing of all regulations that must be met.

(d) Ensure adequate environment, facilities, and equipment.

(e) Monitor equipment with temperature logs.

(f) Copies of flow charts from receiving to consumption.

(g) Hazard assessment at each step in flow diagram (include calibration of equipment).

(h) The critical limits established for each hazard.

(i) Monitoring requirements for temperature, sanitation, finished product specifications, and distribution.

(j) Corrective action plans when there is a deviation in policy, procedure, or standard CCP.

(k) Procedures for verification of HACCP system.

g. Principle #7. Establish Procedures to Verify the HACCP System is Working.

(1) Verification procedures include both the person in charge and the PMA.

(2) The person in charge should, among other actions,

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spot check temperatures of products in the refrigerators; check invoices for temperatures of food on delivery and check temperatures of food on serving line and being removed from cooking. The person in charge should also watch to see if employees are washing their hands, cleaning and sanitizing equipment, and taking other steps to limit cross contamination.

(3) Verification procedures may include:

(a) Establishment of appropriate verification inspection schedules.

(b) Review of the HACCP plan.

(c) Review of the CCP records.

(d) Review of the deviations and dispositions.

(e) Visual inspection of operations to observe whether CCPs are under control.

(f) Random sample collection and analysis.

(g) Review of critical limits to verify they are adequate to control hazards.

(h) Review of written record of verification inspections covering compliance, deviations, or corrective actions taken.

(i) Review of modifications of the HACCP plan.

3-8.3 HACCP Inspection Guidelines

a. The PMA, when looking at a food service establishment with an implemented HACCP program, should:

(1) Try to determine if the food service personnel understand and are following the HACCP system for the facility.

(2) Concentrate on the critical offenses associated with incidence of food borne illness, including time temperature control and prevention of cross contamination.

(3) Begin a HACCP based sanitation inspection with the menu.

(a) Using the menu, the cook worksheet or production schedule, try to determine the flow of food through the facility. If the facility has flowcharts for major menu items, examine

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these for clarity, completeness, CCPs, and CL.

(4) Try to inspect the facility based on the flowchart or other available SOPs, etc.

(a) Start with the refrigerated storage. Take the internal product temperature of a representative sampling of the food. Are the product temperatures and item consistent with the menu and the cook worksheet/production schedule?

(b) Check invoices and receiving records. Are potentially hazardous foods checked at delivery for wholesomeness, product temperatures, etc.? If a delivery is taking place, do food service workers wash their hands before and after handling raw PHFs? Are they using a sanitized product thermometer?

(c) Observe food preparation for personal hygiene, hand washing, wearing clean disposable gloves, using clean sanitized utensils, and other practices which limit cross contamination.

(d) Observe cooking processes. Do cooks check the internal product temperatures? Are PHFs removed from the oven and placed either in hot food holding or cooling promptly; or, are foods left on stoves, counter tops, etc. for long periods? Are leftovers rapidly heated to 165° F before being placed on the serving line?

(e) Check serving line. Are foods at correct product temperatures. Are foods such as soups, salads and other items brought out at correct temperatures and in small batches?

(f) Check cooling techniques for leftovers and pre-prepared foods. Are the techniques appropriate? Do they work?

(g) Talk to the food service personnel. Do employees understand the HACCP system, CCPs and critical limits that effect their work? Knowledge of what to do if critical limits are exceeded or not met?

(h) Examine training records. Are managers trained? Do employees receive adequate ongoing training appropriate to their position?

b. Remember the goal of the HACCP system is to prevent food borne illness by identifying and controlling hazards.